Applicant understands that this Response, now being in compliance, will be duly entered into the record and taken up for examination by the Examiner. Applicant further understands that the Petition to Make Special and Petition from the Requirement for Restriction under 37 C.F.R. § 1.144 submitted in the April 15, 2002 Response have been properly processed with respect to the fees for these Petitions. With respect to the Petition to Make Special, Applicant understands that this Petition is separate from the Response and has been forwarded to the Office of Petitions. With respect to the Petition from the Requirement for Restriction, Applicant understands that because this Petition was incorporated into the April 15, 2002 Response, found previously non-compliant, this Petition will now be taken up for processing and forwarded to the Office of Petitions.

Further, Applicant understands that the Request for Extension of time that was submitted in the April 15, 2002 Response, and its fee, have been appropriately processed and found to be in compliance. If Applicant's understanding with respect to either of the Petitions or the Request for Extension of time is incorrect, Applicant requests that the Examiner so inform Applicant.

In the Claims

Please amend claims 162, 163, 167, 168 and 176 as follows. A copy of the claims showing the exact changes and a clean copy are attached at the end of this response.

162. (Amended) A method of identifying T cells specific for an antigen of interest comprising:

(a) obtaining a biological sample containing T cells which are specific for an antigen of interest;

(b) preparing an artificial antigen presenting cell comprising attributes of any of the claims selected from the group consisting of claim 220, claim 222, claim 223, claim 228, claim 232, claim 233, claim 236, claim 246, claim 248, claim 249, claim 255, claim 262, claim 273, claim 275, claim 276, claim 282, claim 286, claim 287, claim 289, claim 300, claim, 302, claim 303, claim 310, claim 314, claim 315, claim 317, claim 328, claim 341, claim 342, claim 344, claim 350, claim 354, claim 357, wherein the antigen in said artificial antigen presenting cell is said antigen of interest;

(c) contacting the biological sample obtained in step (a) with the artificial antigen presenting cell obtained in step (b) to form an artificial antigen presenting cell:T cell complex; wherein at least one element of said artificial antigen presenting cell is associated with a label, said elements selected from the group consisting of said antigen of interest, an irrelevant molecule, a lipid layer, a lipid, an MHC molecule components, a co-stimulatory components, an adherent components, a cell modulation components, and an accessory molecule components; and

(d) detecting said label.

163. (Amended) A method of isolating T cells specific for an antigen of interest comprising:

(a) obtaining a biological sample containing T cells which are specific for an antigen of interest;

(b) preparing an artificial antigen presenting cell comprising attributes of any of the claims selected from the group consisting of claim 220, claim 222, claim 223, claim 228, claim 232, claim 233, claim 236, claim 246, claim 248, claim 249, claim 255, claim 262, claim 273, claim 275, claim 276, claim 282, claim 286, claim 287, claim 289, claim 300, claim 302, claim 303, claim 310, claim 314, claim 315, claim 317, claim 328, claim 341, claim 342, claim 344, claim 350, claim 354, claim 357, wherein the antigen in said artificial antigen presenting cell is said antigen of interest;

(c) contacting the biological sample obtained in step (a) with the artificial antigen presenting cell obtained in step (b) to form an artificial antigen presenting cell:T cell complex; wherein at least one element of said artificial antigen presenting cell is associated with a label, said elements selected from the group consisting of said antigen of interest, an irrelevant molecule, a lipid layer, a lipid, an MHC molecule components, a co-stimulatory components, an adherent components, a cell modulation components, and an accessory molecule components;

(d) removing said artificial antigen presenting cell:T cell complex formed in step (c) from said biological sample; and

(e) separating T cells specific for said antigen of interest from said artificial antigen presenting cell:T cell complex.

167. (Amended) A method according to claim 165 wherein said biological sample is selected from the group consisting of whole blood, blood cells, blood plasma, and tissue.

168. (Amended) A method of modulating T cell response comprising:

(a) isolating T cells which are specific for an antigen of interest using a method of claim 163; and

(b) contacting said isolated T cells with an artificial antigen presenting cell comprising attributes of any of the claims selected from the group consisting of claim 220, claim 222, claim 223, claim 228, claim 232, claim 233, claim 236, claim 246, claim 248, claim 249, claim 255, claim 262, claim 273, claim 275, claim 276, claim 282, claim 286, claim 287, claim 289, claim 300, claim 302, claim 303, claim 310, claim 314, claim 315, claim 317, claim 328, claim 341, claim 342, claim 344, claim 350, claim 354, claim 357, wherein said antigen presenting cell has an antigen of interest or a homologue of said antigen of interest, said artificial antigen presenting cell further having at least on molecule selected from the group consisting of an accessory molecule components, a co-stimulatory components, an adhesion components, and a cell modulation components.

176. (Amended) A method of characterizing the functional state of antigen-specific T cells comprising:

(a) isolating T cells in accordance with the method of claim 163;

(b) extracting mRNA from said isolated T cells;

(c) obtaining cDNA corresponding to said extracted mRNA;

(d) evaluating the mRNA encoding proteins that govern function and phenotype of said antigen-specific T cells, said evaluation carried out by a method selected from the group consisting of (1) mRNA translation of said proteins and testing said proteins using antibodies against such proteins, and (2) rtPCR of the mRNA using primers specific for said proteins.

Please add New claims 381 and 382 as follows:

381. (New) A kit according to claim 198 wherein said artificial APCs have the further component of molecules for orienting molecules of interest selected from the group consisting of GM-1, a pentasaccharide, a ganglioside, and cholera toxin β subunit.

382. (New) An immunomodulatory column according to claim 215 wherein said column is used for a process of manipulating T cell populations, said process selected from the group consisting of identifying T cells specific for an antigen of interest according to claim 162, isolating T cells specific for an antigen of interset according to claim 163, modulating T cell response according to claim 168, characterizing the functional state of antigen-specific T cells according to claim 176, treating a condition in a subject which would be benefited by altering the functional pattern of cytokine production by certain antigen-specific T cells according to claim 186, treating a condition in a subject which would be benefited by increasing Th-1 response according to claim 189, identifying antigen-specific T cells specific for epitopes on a graft donor's tissue according to claim 195, and treating a recipient mammal to reduce rejection of allografts in a transplantation therapy regimen according to claim 196.

Remarks

1. The above referenced office letter was addressed to Wesley Ames. Applicant again request that all future correspondence be addressed to the attention of Douglas C. Murdock.

2. Attached to the February 14, 2002 office letter was a sheet titled "Attachment for PTO-948 (Rev. 03/01, or earlier) 6/18/01." This sheet describes "information on how to effect drawing changes" and notes that Applicant is required to submit drawing corrections within the time period set in the attached Office communication per 37 CFR § 1.85(a) or else the application will become abandoned.

Applicant originally filed formal drawings and our records do not indicate that the PTO has issued any statement regarding the condition of the drawings or a need for any corrections thereon. Further, there is no indication in the February office letter that any corrections are due. Therefore, for purposes of this response, Applicant have assumed that the attachment was meant as a general notice on new procedures rather than a rejection of the existing drawings. Applicant request, however, that the Examiner specifically state for the record whether or not the PTO has